LISTING OF CLAIMS

Claims 1-49 (Cancelled)

Claim 50. (Currently Amended) An extracorporeal system for reducing the amount of a targeted immune system inhibitor in blood, comprising:

a) an absorbent matrix comprising an inert medium attached to at least one binding partner capable of specifically binding to a targeted immune system inhibitor ~~selected from the group consisting of: soluble receptors for tumor necrosis factor α and β, interleukin-1 receptor antagonist, soluble receptors for interleukin- 1, and soluble receptors for interleukin-6~~; and

b) a conduit for conducting the blood to the absorbent matrix to produce altered blood having a reduced amount of the targeted immune system inhibitor,

wherein binding partners in said extracorporeal system are selected from the group consisting of binding partners to: soluble receptors for tumor necrosis factor α and β, interleukin-1 receptor antagonist, soluble receptors for interleukin- 1, and soluble receptors for interleukin-6.

Claim 51. (Previously Presented) The extracorporeal system of claim 50, wherein the targeted immune system inhibitor is present in a plasma component of the blood or fraction thereof.

Claim 52. (Previously Presented) The extracorporeal system of claim 50, wherein the inert medium is selected from the group consisting of: a hollow fiber, a macroporous bead, a cellulose-based fiber, a synthetic fiber, a flat membrane, a pleated membrane, and a silica-based particle.

Claim 53. (Previously Presented) The extracorporeal system of claim 50, wherein the inert medium is a hollow fiber.

Claim 54. (Previously Presented) The extracorporeal system of claim 50, wherein the inert medium is a macroporous bead.

Claim 55. (Previously Presented) The extracorporeal system of claim 50, wherein the inert medium is a cellulose-based fiber.

Claim 56. (Previously Presented) The extracorporeal system of claim 50, wherein the inert medium is a synthetic fiber.

Claim 57. (Previously Presented) The extracorporeal system of claim 50, wherein the inert medium is a flat or pleated membrane.

Claim 58. (Previously Presented) The extracorporeal system of claim 50, wherein the inert medium is a silica-based particle.

Claim 59. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner is covalently joined to the inert medium.

Claim 60. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner is a binding partner to which the targeted immune system inhibitor binds to in nature, or a fragment of the binding partner to which the targeted immune system inhibitor binds to in nature, wherein the fragment specifically binds to the targeted immune system inhibitor.

Claim 61. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner or fragment is produced recombinantly.

Claim 62. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner is a monoclonal antibody or a fragment of a monoclonal antibody that specifically binds to the targeted immune system inhibitor.

Claim 63. (Previously Presented) The extracorporeal system of claim 62, wherein the monoclonal antibody is produced recombinantly.

Claim 64. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner comprises a plurality of different monoclonal antibodies or fragments thereof, wherein the plurality of monoclonal antibodies or fragments thereof are capable of specifically binding to the targeted immune system inhibitor.

Claim 65. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner comprises a plurality of different monoclonal antibodies or fragments thereof, wherein the monoclonal antibodies or fragments thereof are collectively capable of specifically binding to a plurality of targeted immune system inhibitors.

Claim 66. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner comprises a polyclonal antibody preparation or fragments of a polyclonal antibody preparation that specifically bind to the targeted immune system inhibitor.

Claim 67. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner comprises a plurality of different polyclonal antibody preparations or fragments thereof, wherein the polyclonal antibodies or fragments thereof are capable of specifically binding to the targeted immune system inhibitor.

Claim 68. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner comprises a plurality of different polyclonal antibody preparations or fragments thereof, wherein the polyclonal antibodies or fragments thereof are capable of specifically binding to a plurality of targeted immune system inhibitors.

Claim 69. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner is a synthetic peptide.

Claim 70. (Previously Presented) The extracorporeal system of claim 69, wherein the synthetic peptide is conjugated to a carrier.

Claim 71. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner comprises a plurality of synthetic peptides capable of specifically binding to the targeted immune system inhibitor.

Claim 72. (Previously Presented) The extracorporeal system of claim 71, wherein the plurality of synthetic peptides is conjugated to a carrier.

Claim 73. (Previously Presented) The extracorporeal system of claim 50, wherein the binding partner comprises a plurality of synthetic peptides capable of specifically binding to a plurality of targeted immune system inhibitors.

Claim 74. (Previously Presented) The extracorporeal system of claim 73, wherein the plurality of synthetic peptides is conjugated to a carrier.

Claim 75. (Withdrawn) An extracorporeal system for reducing the amount of a targeted immune system inhibitor in whole blood, comprising:

a) an apparatus for separating whole blood into a cellular component and an acellular component or fraction of the acellular component, wherein the acellular component or the fraction of the acellular component contains a targeted immune system inhibitor selected from the group consisting of: soluble receptors for tumor necrosis factor α and β interleukin-1 receptor antagonist, soluble receptors for interferon-γ, soluble receptors for interleukin- 1, and soluble receptors for interleukin6;

b) a mixing chamber containing a binding partner capable of specifically binding to the targeted immune system inhibitor of (a) to form a binding partner/immune system inhibitor complex;

c) a conduit for conducting the acellular component or fraction of the acellular component from the apparatus of (a) to the mixing chamber of (b) to produce an altered acellular component or fraction of the acellular component containing a binding partner/immune system inhibitor complex;

d) a mechanism for removing the binding partner/immune system inhibitor complex from the altered acellular component or fraction of the acellular component to produce an altered acellular component or fraction of the acellular component having a reduced amount of the targeted immune system inhibitor;

e) a conduit for conducting the acellular component or fraction of the acellular component from the mixing chamber of(b) to the mechanism for removing the binding partner/immune system inhibitor complex of (d); and,

f) a conduit for conducting the altered acellular component or fraction of the acellular component from the mechanism for removing the

binding partner/immune system inhibitor complex of(d) to the cellular component to produce an altered whole blood.

Claim 76. (Withdrawn) The extracorporeal system of claim 75, wherein the mechanism for removing the binding partner/immune system inhibitor complex of (d) is selected from the group consisting of: an absorbent matrix capable of specifically binding to the binding partner and a mechanical mechanism for removing the binding partner/immune system inhibitor complex from the altered acellular component or fraction of the acellular component.

Claim 77. (Withdrawn) The extracorporeal system of claim 76, wherein the mechanical mechanism for removing is a filter that retains the binding partner/immune system inhibitor complex and passes the altered acellular component or fraction of the acellular component through to the conduit of (f).

Claim 78. (Withdrawn) The extracorporeal system of claim 76, wherein the absorbent matrix comprises a compound capable of specifically binding to the binding partner such that the binding partner/immune system inhibitor complex is removed from the acellular component or fraction of the acellular component, whereby the altered acellular component or fraction of the acellular component passes to the conduit of (f).

Claim 79. (Withdrawn) The extracorporeal system of claim 75, wherein the acellular component or fraction of the acellular component is a plasma component or fraction of the acellular component.

Claim 80. (Currently Amended) An extracorporeal system for reducing the amount of a targeted immune system inhibitor in whole blood, comprising:

a) a means for separating whole blood into a cellular component and an acellular component or fraction of the acellular component, wherein the acellular component or the fraction of the acellular component contains a targeted immune system inhibitor ~~selected from the group consisting of: soluble receptors for tumor necrosis factor α and β, interleukin- 1 receptor antagonist, soluble receptors for interferon-γ, soluble receptors for interleukin-1, and soluble receptors for interleukin-6~~;

b) a means for providing a binding partner capable of specifically binding to the targeted immune system inhibitor in (a);

c) a means for conducting the acellular component or fraction of the acellular component to the means for providing the targeted immune system inhibitor to produce an altered acellular component or fraction of the acellular component;

d) a means for conducting the altered acellular component or fraction of the acellular component from the absorbent matrix to the cellular component to produce an altered whole blood,

wherein binding partners in said extracorporeal system are selected from the group consisting of binding partners to: soluble receptors for tumor necrosis factor α and β, interleukin-1 receptor antagonist, soluble receptors for interleukin- 1, and soluble receptors for interleukin-6.

Claim 81. (Currently Amended) An extracorporeal system for reducing the amount of a targeted immune system inhibitor in whole blood, comprising:

a) a means for separating whole blood into a cellular component and an acellular component or fraction of the acellular component, wherein the acellular component or the fraction of the acellular component contains a targeted immune system ~~inhibitor selected from the group consisting of: soluble receptors for tumor necrosis factor α and β, interleukin-1 receptor antagonist, soluble receptors for interferon γ, soluble receptors for interleukin-1, and soluble receptors for interleukin-6~~;

b) a means for providing a binding partner capable of specifically binding to the targeted immune system inhibitor in (a);

c) a means for conducting the acellular component or fraction of the acellular component to the means for providing the targeted immune system inhibitor to produce an altered acellular component or fraction of the acellular component;

d) a means for conducting the altered acellular component or fraction of the acellular component from the absorbent matrix to the cellular component to produce an altered whole blood, wherein the means for providing a binding partner comprises an absorbent matrix comprising an inert medium attached to a binding partner capable of specifically binding to the targeted immune system inhibitor,

wherein binding partners in said extracorporeal system are selected from the group consisting of binding partners to: soluble receptors for tumor necrosis factor α and β, interleukin-1 receptor antagonist, soluble receptors for interleukin- 1, and soluble receptors for interleukin-6.

Claim 82. (Withdrawn) The extracorporeal system of Claim 80, wherein the means for providing a binding partner comprises:

(i) a mixing chamber containing a binding partner capable of specifically binding to the targeted immune system inhibitor to form a binding partner/immune system inhibitor complex;

(ii) a means for conducting the acellular component or fraction of the acellular component to the mixing chamber to produce an altered acellular component or fraction of the acellular component containing a binding partner/immune system inhibitor complex; and,

(iii) a mechanism for removing the binding partner/immune system inhibitor complex from the altered acellular component or fraction of the acellular component to produce an altered acellular component or fraction of the acellular component having a reduced amount of the targeted immune system inhibitor.

Claim 83. (Previously Presented) The extracorporeal system of Claim 50, further comprising an apparatus for separating whole blood into a cellular component and an acellular component or a fraction of the acellular component.

Claim 84. (Previously Presented) The extracorporeal system of Claim 83, wherein the acellular component or the fraction of the acellular component contains the targeted immune system inhibitor.

Claim 85. (Previously Presented) The extracorporeal system of Claim 84, wherein the conduit conducts the acellular component or fraction of the acellular component to the absorbent matrix to produce an altered acellular component or

altered fraction of the acellular component having a reduced amount of the targeted immune system inhibitor.

Claim 86. (Previously Presented) The extracorporeal system of Claim 85, further comprising a conduit for conducting the altered acellular component or fraction of the acellular component from the absorbent matrix to the cellular component to produce an altered whole blood.

Claim 87. (Withdrawn) A method for stimulating an immune response in a mammal, comprising treating the blood of said mammal with the extracorporeal device of Claim 50.